

OHIO DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF RECLAMATION

ATTACHMENT 20  
(SEDIMENTATION POND/IMPOUNDMENT DATA SHEET)

Applicant's Name THE OHIO VALLEY COAL COMPANY Pond # 013

Type of impoundment EXCAVATED Permanent        Temporary X

1. POND DRAINAGE AREA DATA:

- a) Drainage area 24.6 acres
- b) Disturbed area 24.6 acres
- c) Ave. land slope 1 %
- d) Hydrologic soil group N/A (MINE REFUSE)
- e) Hydraulic length 2400 ft.
- f) Cover/condition of the undisturbed area N/A

2. DESIGN STORM CRITERIA:

a) Method:

- 1) Design method (s) including computer programs: SEDCAD
- 2) SCS curve number 87

b) Rainfall Amount/Peak Flow	Rainfall, in.	Peak flow, cfs.
1) 10 year, 24 hour -	<u>3.7</u>	<u>41</u>
2) 25 year, 24 hour	<u>4.3</u>	<u>50</u>
3) 50 year, 6 hour = (if permanent)	<u>      </u>	<u>      </u>
4) 100 year, 6 hour = (if 20/20 size)	<u>      </u>	<u>      </u>

3. POND SIZE:

a) Dimensions:

- 1) Dam height 3.0 ft.
- 2) Dam width 15 ft.
- 3) Dam length 125 ft.
- 4) Dam downstream slope 33 %
- 5) Dam upstream slope 50 %
- 6) Core length 125 ft. 4 ft. 10 ft.

- b) Sediment storage volume 3.15 ac. ft. is provided below the 885.0 foot elevation.

c) Stage/Area Data:	Elevation ft.	Surface Area ac.	Volume ac.ft.
1) Bottom of pond	<u>879.0</u>	<u>0.40</u>	<u>0</u>
2) Streambed at upstream toe:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
3) Principal spillway inlet:	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
4) Exit Channel Crest:	<u>885.0</u>	<u>0.66</u>	<u>3.15</u>
5) Top of embankment:	<u>888.0</u>	<u>0.79</u>	<u>5.32</u>

PRINCIPAL SPILLWAY: N/A

- a) Pipe length \_\_\_\_\_ ft.
- b) Pipe diameter \_\_\_\_\_ in.
- c) Pipe slope \_\_\_\_\_
- d) Riser diameter \_\_\_\_\_ in.
- e) Riser height \_\_\_\_\_ ft.
- f) Type of pipe \_\_\_\_\_
- g) Number of anti-seep collars \_\_\_\_\_; spacing along pipe \_\_\_\_\_ ft.
- h) Does the design include a trash rack? \_\_\_\_\_ Yes, \_\_\_\_\_ No.
- i) Does the design include an anti-vortex device? \_\_\_\_\_ Yes, \_\_\_\_\_ No.

## 5. EMERGENCY SPILLWAY/EXIT CHANNEL:

- a) Base width 12 ft.
- b) Design flow depth 0.4 ft.      Depth in level section 1.1 ft.
- c) Exit slope 3 :
- d) Exit velocity 7.8 fps
- e) Channel lining ROCK RIPRAP (D<sub>MAX</sub>=8")
- f) Side slopes 2:1
- g) Freeboard 1.9 ft.
- h) Entrance slope 50 :
- i) Length of level section 10 ft.

6. The minimum static factor of safety for this impoundment is 1.5

7. Provide as an addendum to this attachment a detailed plan view or 2 cross sections of the impoundment.

8. COMMENTS    A 6 INCH DIAMETER CORRUGATED POLYETHYLENE PIPE 100' LONG AT A SLOPE OF 3:1 WILL BE USED TO DEWATER THE POND. THE INVERT WILL BE AT THE 383.0 ELEVATION.

9. Is this an MSHA structure? \_\_\_\_\_ Yes, X No. If "yes," provide the MSHA ID. number if one has been assigned \_\_\_\_\_

10. If this is to be retained as a permanent impoundment, submit an addendum to this attachment demonstrating compliance with rule 1501:13-9-04(H) (2) of the Administrative Code.

11. I hereby certify that this impoundment is designed to comply with the applicable requirements of rule 1501:13-9-04 of the Administrative Code using current, prudent engineering practices.

William J. Siplivy  
Signature

2-24-98  
Date

P.E. SEAL

